CLAIMS

What is claimed is:

1   1.   A method for storing a scrambled digital program comprising:

2   receiving the scrambled program;

3   receiving a plurality of access requirements, wherein each access

4   requirement can descramble the scrambled program;

5   selecting at least one of the access requirements;

6   storing the scrambled program and the selected at least one access

7   requirement.

1   2.   The method of claim 1, wherein each access requirement is included

2   in a packet identifier (PID).

1   3.   The method of claim 1, further comprising filtering the selected access

2   requirement with a filtering function that receives the plurality of access

3   requirements at an input and permits the selected access requirement to

4   pass to an output.

1   4.   The method of claim 3, wherein the output of the filtering function is

2   delivered to an input of a digital storage medium.

1   5.   The method of claim 1, wherein the access requirements are selected

2   from the group comprising pay per view, pay per time, impulse pay per view,

3   time based historical, pay per time, repurchase of copy never movies, and

4   personal scrambling.

1   6.   A copy management method for controlling the recording and

2   reproduction of digital content comprising:

3   receiving a digital bitstream including program data, said program

4   data including system information and said digital content in a scrambled

5   format;

6   descrambling said digital content in a scrambled format to provide a

7   first output including said digital content in a descrambled format;

8   re-scrambling said digital content in a descrambled format to provide

9   a second output including said digital content in a re-scrambled format;

10   outputting said first output including said digital content in a

11   descrambled format and a second output including said digital content in a

12   re-scrambled format;

13   receiving a plurality of access requirements, wherein each access

14   requirement can descramble the program data;

15   selecting at least one of the access requirements;

16   storing the scrambled program data and the selected at least one

17   access requirement.

1   7.   The copy management method of claim 6, further comprising

2   receiving and recording said digital content of said second output in a

3   scrambled format.

1   8.   The copy management method of claim 6, further comprising:

2   demultiplexing said digital content from said program data; and

3   decompressing said digital content in a descrambled format to a

4   decompressed state.

1   9.   The copy management method of claim 6, wherein said

2   decompressing is executed in an MPEG decoder.

1   10.   The copy management method of claim 6, wherein said digital content

2   is content contained in digital television transmissions.

1   11.   The copy management method of claim 6, wherein said digital content

2   is content downloaded from the Internet.

1   12.   The copy management method of claim 6, wherein said descrambling

2   and re-scrambling steps are carried out in a first conditional access unit.

1   13.   The copy management system of claim 6, wherein said descrambling

2   step is carried out in a first conditional access unit, and said re-scrambling

3   step is carried out in a second conditional access unit.

1   14.   The copy management system of claim 6, wherein said descrambling

2   step comprises:

3   extracting a descrambling key included in said program data; and

4   applying said descrambling key to said digital content in a scrambled

5   format to provide said digital content in a descrambled format.

1   15.   The copy management system of claim 6, wherein said descrambling

2   key is used to re-scramble said digital content.

1   16.   A copy management method for controlling the recording and

2   reproduction of digital content comprising:

3   receiving a digital bitstream including program data, said program

4   data including system information and said digital content in a scrambled

5   format;

6   descrambling said digital content in a scrambled format to provide a

7   first output including said digital content in a descrambled format;

8   outputting said first output including said digital content in a

9   descrambled format;

10   outputting a second output including said digital content in a

11   scrambled format;

12   receiving a plurality of access requirements, wherein each access

13   requirement can descramble the scrambled program;

14   selecting at least one of the access requirements;

15   storing the scrambled program data and the selected at least one

16   access requirement.

1 17. The copy management method of claim 16, further comprising

2 receiving and recording said digital content of said second output in a

3 scrambled format.

1 18. The copy management method of claim 16, further comprising:

2 demultiplexing said digital content from said program data; and

3 decompressing said digital content in a descrambled format to a

4 decompressed state.

1 19. The copy management method of claim 16, wherein said

2 decompressing is executed in an MPEG decoder.

1 20. The copy management method of claim 16, wherein said digital

2 content is content contained in digital television transmissions.

1 21. The copy management method of claim 16, wherein said digital

2 content is downloaded from the Internet.

1 22. The copy management system of claim 16, wherein said

2 descrambling comprises:

3 extracting a descrambling key included in said program data; and

4 applying said descrambling key to said digital content in a scrambled

5 format to provide said digital content in a descrambled format.

1   23.   An apparatus for storing a scrambled digital program comprising:

2   a receiver to receive the scrambled program; and to receive a plurality

3   of access requirements, wherein each access requirement can descramble

4   the scrambled program;

5   a selector to select at least one of the access requirements;

6   a memory to store the scrambled program and the selected at least

7   one access requirement.

1   24.   The apparatus of claim 23, wherein each access requirement is

2   included in a packet identifier (PID).

1   25.   The apparatus of claim 23, further comprising a filter to filter the

2   selected access requirement with a filtering function that receives the

3   plurality of access requirements at an input and permits the selected access

4   requirement to pass to an output.

1   26.   The apparatus of claim 25, wherein the output of the filtering function

2   is delivered to an input of a digital storage medium.

1   27.   The apparatus of claim 23, wherein the access requirements are

2   selected from the group comprising pay per view, pay per time, impulse pay

3   per view, time based historical, pay per time, repurchase of copy never

4   movies, and personal scrambling.

1   28.   A copy management system for controlling the recording and

2   reproduction of digital content comprising:

3   means for receiving a digital bitstream including program data, said

4   program data including system information and said digital content in a

5   scrambled format;

6   means for descrambling said digital content in a scrambled format to

7   provide a first output including said digital content in a descrambled format;

8   means for re-scrambling said digital content in a descrambled format

9   to provide a second output including said digital content in a re-scrambled

10   format;

11   means for outputting said first output including said digital content in a

12   descrambled format and a second output including said digital content in a

13   re-scrambled format;

14   means for receiving a plurality of access requirements, wherein each

15   access requirement can descramble the program data;

16   means for selecting at least one of the access requirements;

17   means for storing the scrambled program data and the selected at

18   least one access requirement.

1   29.   The copy management system of claim 28, further comprising means

2   for receiving and recording said digital content of said second output in a

3   scrambled format.

1   30.   The copy management system of claim 28, further comprising:

2   demultiplexing said digital content from said program data; and

3   decompressing said digital content in a descrambled format to a

4   decompressed state.

1   31.   The copy management system of claim 28, wherein said

2   decompressing is executed in an MPEG decoder.

1   32.   The copy management system of claim 28, wherein said digital

2   content is content contained in digital television transmissions.

1   33.   The copy management system of claim 28, wherein said digital

2   content is content downloaded from the Internet.

1   34.   The copy management system of claim 28, wherein said

2   descrambling and re-scrambling steps are carried out in a first conditional

3   access unit.

1   35.   The copy management system of claim 28, wherein said

2   descrambling step is carried out in a first conditional access unit, and said

3   re-scrambling step is carried out in a second conditional access unit.

1   36.   The copy management system of claim 28, wherein said

2   descrambling step comprises:

3   means for extracting a descrambling key included in said program

4   data; and

5   means for applying said descrambling key to said digital content in a

6   scrambled format to provide said digital content in a descrambled format.

1   37.   The copy management system of claim 28, wherein said

2   descrambling key is used to re-scramble said digital content.

1   38.   A copy management system for controlling the recording and

2   reproduction of digital content comprising:

3   means for receiving a digital bitstream including program data, said

4   program data including system information and said digital content in a

5   scrambled format;

6   means for descrambling said digital content in a scrambled format to

7   provide a first output including said digital content in a descrambled format;

8   means for outputting said first output including said digital content in a

9   descrambled format;

10   means for outputting a second output including said digital content in

11   a scrambled format;

12   means for receiving a plurality of access requirements, wherein each

13   access requirement can descramble the scrambled program;

14   means for selecting at least one of the access requirements;

15   means for storing the scrambled program data and the selected at

16   least one access requirement.

1   39.   The copy management system of claim 38, further comprising means

2   for receiving and recording said digital content of said second output in a

3   scrambled format.

1   40.   The copy management system of claim 38, further comprising:

2   means for demultiplexing said digital content from said program data;

3   and

4   means for decompressing said digital content in a descrambled

5   format to a decompressed state.

1   41.   The copy management system of claim 38, wherein said

2   decompressing is executed in an MPEG decoder.

1   42.   The copy management system of claim 38, wherein said digital

2   content is content contained in digital television transmissions.

1   43.   The copy management system of claim 38, wherein said digital

2   content is downloaded from the Internet.

1   44.   The copy management system of claim 38, wherein said means for

2   descrambling comprises:

3   means for extracting a descrambling key included in said program

4   data; and

5   means for applying said descrambling key to said digital content in a

6   scrambled format to provide said digital content in a descrambled format.

1   45.   A system for storing a scrambled digital program comprising:

2   means for receiving the scrambled program;

3   means for receiving a plurality of access requirements, wherein each

4   access requirement can descramble the scrambled program;

5   means for selecting at least one of the access requirements;

6   means for storing the scrambled program and the selected at least

7   one access requirement.

1   46.   The system of claim 45, wherein each access requirement is included

2   in a packet identifier (PID).

1   47.   The system of claim 45, further comprising means for filtering the

2   selected access requirement with a filtering function that receives the

3   plurality of access requirements at an input and permits the selected access

4   requirement to pass to an output.

1   48.   The system of claim 47, wherein the output of the filtering function is

2   delivered to an input of a digital storage medium.

1   49.   The system of claim 45, wherein the access requirements are

2   selected from the group comprising pay per view, pay per time, impulse pay

3   per view, time based historical, pay per time, repurchase of copy never

4   movies, and personal scrambling.

1   50.   A computer readable medium containing instructions which, when

2   executed by a processing system, cause the system to perform a method for

3   storing a scrambled digital program comprising:

4   receiving the scrambled program;

5   receiving a plurality of access requirements, wherein each access

6   requirement can descramble the scrambled program;

7   selecting at least one of the access requirements;

8   storing the scrambled program and the selected at least one access

9   requirement.

1   51.   The medium of claim 50, wherein each access requirement is

2   included in a packet identifier (PID).

1   52.   The method of claim 50, wherein the instructions, when executed,

2   further cause the system to perform filtering the selected access requirement

3   with a filtering function that receives the plurality of access requirements at

4   an input and permits the selected access requirement to pass to an output.

1   53.   The medium of claim 52, wherein the output of the filtering function is

2   delivered to an input of a digital storage medium.

1   54.   The medium of claim 50, wherein the access requirements are

2   selected from the group comprising pay per view, pay per time, impulse pay

3   per view, time based historical, pay per time, repurchase of copy never

4   movies, and personal scrambling.

1   55.   A computer readable medium containing instructions which, when

2   executed by a processing system, cause the system to perform a copy

3   management method for controlling the recording and reproduction of digital

4   content comprising:

5   receiving a digital bitstream including program data, said program

6   data including system information and said digital content in a scrambled

7   format;

8   descrambling said digital content in a scrambled format to provide a

9   first output including said digital content in a descrambled format;

10   re-scrambling said digital content in a descrambled format to provide

11   a second output including said digital content in a re-scrambled format;

12   outputting said first output including said digital content in a

13   descrambled format and a second output including said digital content in a

14   re-scrambled format;

15   receiving a plurality of access requirements, wherein each access

16   requirement can descramble the program data;

17   selecting at least one of the access requirements;

18   storing the scrambled program data and the selected at least one

19   access requirement.

1   56.   The medium of claim 55, wherein the instructions, when executed,

2   further cause the system to perform receiving and recording said digital

3   content of said second output in a scrambled format.

1   57.   The medium of claim 55, wherein the instructions, when executed,

2   further cause the system to perform:

3   demultiplexing said digital content from said program data; and

4   decompressing said digital content in a descrambled format to a

5   decompressed state.

1   58.   A computer readable medium containing instructions which, when

2   executed by a processing system, cause the system to perform a copy

3   management method for controlling the recording and reproduction of digital

4   content comprising:

5   receiving a digital bitstream including program data, said program

6   data including system information and said digital content in a scrambled

7   format;

8   descrambling said digital content in a scrambled format to provide a

9   first output including said digital content in a descrambled format;

10   outputting said first output including said digital content in a

11   descrambled format;

12   outputting a second output including said digital content in a

13 scrambled format;

14   receiving a plurality of access requirements, wherein each access

15 requirement can descramble the scrambled program;

16   selecting at least one of the access requirements;

17   storing the scrambled program data and the selected at least one

18 access requirement.